

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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**STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - SPECIAL ORDER BY CONSENT
ISSUED TO
THE SUSSEX SERVICE AUTHORITY
FOR
SPRING BRANCH WASTEWATER TREATMENT FACILITY (WWTF)
Permit No. VA0061310**

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and the Sussex Service Authority regarding the Spring Branch WWTF for the purpose of resolving certain violations of the State Water Control Law and the applicable permit and regulation.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "305(b) report" means the report required by Section 305(b) of the Clean Water Act (33 United States Code § 1315(b)), and Va. Code § 62.1-44.19:5 for providing Congress and the public an accurate and comprehensive assessment of the quality of State surface waters.
2. "Authority" or "SSA" means the Sussex Service Authority, an authority created pursuant to the Virginia Water and Waste Authorities Act, Va. Code § 15.2-5100 *et seq.* The Sussex Service Authority is a "person" within the meaning of Va. Code § 62.1-44.3.
3. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1184 and 62.1-44.7.
4. "Category 5D waterbody" means the water quality standard is not attained where TMDLs for a pollutant(s) have been developed but one or more pollutants are still causing impairment requiring additional TMDL development.

5. “Department” or “DEQ” means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
6. “Director” means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
7. “Discharge” means discharge of a pollutant. 9 VAC 25-31-10.
8. “Discharge of a pollutant” when used with reference to the requirements of the VPDES permit program means:
 - a. Any addition of any pollutant or combination of pollutants to surface waters from any point source; or
 - b. Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.
9. “DMR” means Discharge Monitoring Report.
10. “Effluent” means wastewater – treated or untreated – that flows out of a treatment plant, sewer, or industrial outfall.
11. “Facility” means a component of the Sussex Service Authority’s wastewater treatment works located at 601 Jasper Lane, Waverly, Virginia, and discharging to Spring Branch, a tributary of the Blackwater River.
12. “Functioning Element” means a component of a project that if constructed and placed in operation will provide some part of the overall beneficial function of the project.
13. “LTPCP” means Long Term Phosphorus Control Plan, which is the plan for meeting the phosphorus limit that was originally included in the June 20, 2007 reissuance of the Permit, and became effective on June 20, 2011.
14. “O&M” means operations and maintenance.
15. “Order” means this document, also known as a “Consent Order” or “Order by Consent,” a type of Special Order under the State Water Control Law.
16. “Permit” means VPDES permit No. VA0061310, which was issued to the Authority on June 20, 2007, and which is currently administratively continued.
17. “Place in Operation” or “Placing a Facility in Operation” means to achieve consistent operations following completion of a startup and test period of a Facility or unit which

accomplish the intended function of a Facility or unit, even though all construction activities (such as completion of a punch-list, resolution of contract disputes and other close-out items) may not be completed.

18. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.
19. "Regulation" means the VPDES Permit Regulation, 9 VAC 25-31-10 et seq.
20. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of the Va. Code.
21. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3.
22. "Tier 1 water" means a waterbody which meets all adopted water quality standards and in which all existing instream water uses and level of water quality must be maintained and protected.
23. "TMDL" means total maximum daily load.
24. "Treatment Works" means those devices and systems described at 9VAC 25-31-10.
25. "Va. Code" means the Code of Virginia (1950), as amended.
26. "VAC" means the Virginia Administrative Code.
27. "VPDES" means Virginia Pollutant Discharge Elimination System.
28. "WLA" means waste load allocation.
29. "WWTF" means "wastewater treatment facility".

SECTION C: Findings of Fact and Conclusions of Law

1. SSA owns and operates the Facility.
2. SSA also owns the Black Swamp Regional WWTF, which is located at 4385 Beef Steak Road in Waverly, VA.
3. A sanitary sewer system serves the towns of Waverly and Wakefield, as well as sanitary sewage connections in unincorporated parts of Sussex County. This sanitary sewer system discharges to the Facility and to Black Swamp Regional WWTF, and also serves to interconnect these treatment works.

4. Prior to the formation of SSA, the Town of Waverly operated its own sewer system and the Waverly WWTP, which preceded the Facility in function at the Facility's location. The sanitary sewer system periodically overflowed into Spring Branch and its tributaries, and the Waverly WWTP provided minimal nutrient removal. Other facilities (no longer in operation) discharging into the Spring Branch watershed also contributed to the pollutant loading in the waterbody.
5. During the 2014 305(b)/303(d) Integrated Water Quality Report, Spring Branch was considered a Category 5D waterbody. The Aquatic Life Use was impaired due to an inadequate benthic community, high pH and naturally low dissolved oxygen. These impairments are associated with nutrient overenrichment.
6. The "TMDL Development for Spring Branch" report was approved by the EPA on May 10, 2006 and adopted by the State Water Control Board (SWCB) on September 7, 2006. The TMDL addresses these impairments and identifies Total Phosphorus as the system stressor. As a result, Spring Branch WWTF received a total phosphorus WLA of 145.82 kg/year.

With the June 20, 2007 reissuance of the Facility's permit, the annual total phosphorus WLA of 145.82 kg/year was included as a permit limit, with a four-year schedule of compliance and a final limit effective date of June 20, 2011.

7. In the five full calendar years following the effective date of the annual Total Phosphorus limit, the annual total phosphorus loads discharged from the Facility have ranged from 783 to 1150 kg/year.

SECTION D: **Agreement and Order**

Accordingly, the Board, by virtue of the authority granted it in Va. Code §§ 62.1-44.15, orders the Authority, and SSA agrees, that:

1. SSA shall implement the Long Term Phosphorus Control Plan in accordance with the schedule in Appendix A of this Order.
2. New, more cost effective technologies or improvements to the LTCP are expected during implementation. At any time SSA or the Department becomes aware of such new technology or performance improvements, a joint evaluation of the new technology or proposed modification shall be undertaken to determine if the LTCP and this Order should be modified to include the technologies or improvements.

SECTION E: **Administrative Provisions**

1. The Board may modify, rewrite, or amend this Order with the consent of SSA for good cause shown by SSA, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, SSA admits the jurisdictional allegations, findings of fact, and conclusions of law contained herein.
4. SSA consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order
5. SSA declares it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by SSA to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. SSA shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. SSA shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. SSA shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have

occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

- a. the reasons for the delay or noncompliance;
- b. the projected duration of any such delay or noncompliance;
- c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
- d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and SSA. Nevertheless, SSA agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
 - a. The Director or his designee terminates the Order after SSA has completed all of the requirements of the Order;
 - b. SSA petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to SSA.

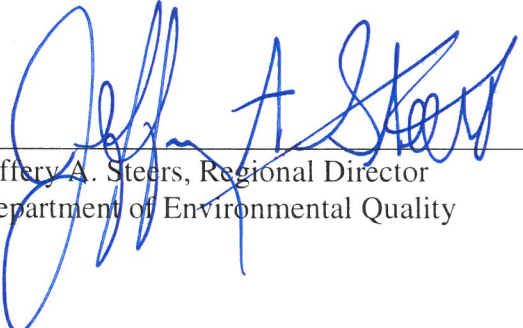
Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve SSA from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by SSA and approved by the Department pursuant to this Order are incorporated into this Order. Any

non-compliance with such approved documents shall be considered a violation of this Order.

13. The undersigned representative of SSA certifies that he or she is a responsible official or officer authorized to enter into the terms and conditions of this Order and to execute and legally bind SSA to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of SSA.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
15. By its signature below, SSA voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 30th day of November, 2017.



Jeffery A. Steers, Regional Director
Department of Environmental Quality

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Sussex Service Authority voluntarily agrees to the issuance of this Order.

Date: June 28, 2017 By: Frank Long, for Sussex Service Authority
(Person)

Commonwealth of Virginia

City/County of Sussex

The foregoing document was signed and acknowledged before me this 28th day of June, 2017, by Frank Long, for Sussex Service Authority.

Ruth A. Price
Notary Public

172537
Registration No.

My commission expires: January 31, 2018

Notary seal:



APPENDIX A

Implementation Schedule for Spring Branch's Long Term Phosphorus Control Plan (LTPCP)

SECTION A.1.

The Authority shall implement the LTPCP projects set forth in this Order on the following schedule.

The Authority shall raise revenue for implementation of the LTPCP to the limit of its financial capability. The Authority shall be deemed to be raising LTPCP project funds to the limit of its financial capability if the following criteria are met:

1. At least bi-annually the Authority adjusts its sewer rates so that within five years of the effective date of this Order:
 - a The annual sewer bill for typical existing residential customers (i.e. 6 ccf or 4,488 gallons of average monthly use) will be at least 1.25% of median household income;
 - b The sewer volume rate for existing customers identified as industrial users in the Authority's utility billing records will equal the rate charged to the Authority's residential customers, and
 - c The rates for new residential and industrial customers will be set at the rates described in a. and b. above upon initial connection.
2. The Authority periodically borrows funds for Treatment Works related projects, including Phosphorus control projects, according to the Authority's General Covenants, and maintains a maximum Wastewater Utility debt coverage ratio below 1.5.
3. The Authority annually seeks grant funding, loan funding or both for Phosphorus control projects in the LTPCP from all applicable federal and state sources.

SECTION A.2.

Each fiscal year following the effective date of this order, the Authority shall allocate and spend available funds on Phosphorus control projects in accordance with the schedule in this Appendix A.

Available funds for Phosphorus control projects shall include annual sewer revenues remaining after deducting from those revenues the monies required for the following:

- Operating expenses,
- Non-operating expenses for the Facility and associated sanitary sewer system,

- Any other expenditure required to comply with any federal, state or local water quality related requirements associated with the Authority's sewer system and Treatment Works.

Available funds for Phosphorus control projects also include any loan and grant funds obtained for the purpose of implementing Phosphorus projects identified in the LTPCP.

SECTION A.3.

The Authority shall plan, design, and construct, startup, test and place in operation the LTPCP projects, in accordance with the following schedule:

1. Alternatives Analysis and LTPCP submittal
 - a. Investigate the technical and economic feasibility of various control strategies, including, but not limited to, 2) - 5) below, whether performed individually or in conjunction with one another.
 - b. Determine sequence in which those projects deemed feasible are to be completed and develop a schedule, to be known hereafter as the LTPCP. Upon approval, the LTPCP will become an effective part of this Order.
 - c. Submit LTPCP to DEQ for review and approval no later than 180 days after the effective date of this Order.
2. Inflow/Infiltration (I/I) identification and reduction
 - a. Perform comprehensive study of conveyance systems served by the Facility and the Black Swamp WWTF.
 - b. Make necessary repairs to eliminate Sanitary Sewer Overflows (SSOs) in Spring Branch watershed.
 - c. Schedule and repair remaining lines.
 - d. Develop preventative survey and repair schedule to prevent I/I in the future.
3. Shunting flow to, and maximizing treatment at, Black Swamp Regional WWTF
 - a. Shunt flow to Black Swamp WWTF up to 95% of current design flow.
 - b. Expedite expansion and upgrade of Black Swamp WWTF.
 - c. Shunt flow to Black Swamp WWTF up to 95% of final design flow.
 - d. Develop contingency plans for future users of Black Swamp WWTF capacity.
4. Installation of Chemical Feed at Spring Branch
 - a. Investigate feasibility of targeted phosphorus removal by chemical feed at specific points in the treatment process.
 - b. Investigate whether additional solids removal or sludge management capacity is required to support targeted phosphorus removal.
 - c. Design and construct facilities.

5. Reclamation/reuse of treated wastewater

- a. Investigate potential uses of treated wastewater from the Facility, the Black Swamp WWTF, or both.
- b. Submit application(s) for permit modification(s) or administrative amendment(s) for the Facility, Black Swamp WWTF, or both.
- c. Design and construct facilities necessary to support reclamation and reuse of treated wastewater.

SECTION A.4.

Beginning January 30th, 2018, and no later than January 30th of each year thereafter, the Authority shall submit a compliance and progress report to the Department. The report shall describe progress made in the previous fiscal year in controlling Phosphorus and plans for further implementation of the LTPCP in the near and long term future. The report shall include, at a minimum, the following elements:

1. An independent rate consultant report, based on audited financial information and that includes schedules and other material designed to demonstrate compliance with the above funding and spending criteria. At a minimum, the independent rate consultant's report will include:
 - a. A schedule of sewer rates and charges in effect during the year and an explanation of any changes in the sewer rates and charges during the year;
 - b. A schedule that calculates the current year annual sewer bill for a residential customer with a 6 ccf (or 4,488 gallons) average monthly sewer use and the percentage of such bill to median household income in the Authority;
 - c. A schedule detailing sewer related revenues, operation and maintenance expenses, net revenues, debt service, reserve funds and the sewer debt service coverage ratio for the previous year;
 - d. A schedule detailing amounts borrowed, grants, and other sources of capital funds, and the amount of capital funds obligated for water quality projects during the previous year, and
 - e. A schedule displaying the industrial rate structure.
2. An accounting of all sums expended on implementation of specific Phosphorus projects contained in the LTPCP in the previous fiscal year and in each fiscal year since the effective date of this Order.

3. An accounting of all sums obligated in the current fiscal year, and funds projected to be obligated within the next five years for implementation of specific Phosphorus projects contained in the LTPCP.
4. A narrative report of the status of each phosphorus project identified in the LTPCP, including projected completion dates, contingent upon funding availability.
5. A status report of progress being made in procuring state and federal grants, and low interest loans, for the purpose of implementing specific elements of the LTPCP.

The Authority agrees to accommodate requests by the Department for changes in annual report format and additional information. The Authority also agrees to meet with the Department in February, 2018, and every February thereafter, to discuss the status of the Phosphorus projects required under this Order.

APPENDIX B
Interim Annual Loading Limit for Total Phosphorus

1. During the time this Order is in effect, the Facility shall comply with an annual loading limit of 1100.00 kg/year for Total Phosphorus. Data shall be reported on the facility's DMR. The total monthly load shall be calculated in accordance with the following formula:

$$ML = \left(\frac{\sum DL}{s} \right) \times d$$

where:

ML = total monthly load (lb/mo) = average daily load for the calendar month multiplied by the number of days of the calendar month on which a discharge occurred

DL = daily load = daily concentration (expressed as mg/l to the nearest 0.01 mg/l) multiplied by the flow volume of effluent discharged during the 24-hour period (expressed as MGD to at least the nearest 0.01 MGD and in no case less than two significant digits), multiplied by 8.345. Daily loads greater than or equal to 10 pounds may be rounded to the nearest whole number to convert to pounds per day (lbs/day). Daily loads less than or equal to 10 pounds may be rounded to no fewer than two significant figures.

s = number of days in the calendar month in which a sample was collected and analyzed

d = number of discharge days in the calendar month

All daily concentration data below the quantification level (QL) for the analytical method used should be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported. If all data are below the QL, then the average shall be reported as half the QL.

2. The total year-to-date mass load shall be calculated in accordance with the following formula:

$$AL_{YTD} = \sum_{(Jan-present)} ML$$

where:

AL-YTD = calendar year-to-date annual load (lb/yr)

ML = total monthly load (lb/mo)

The total annual mass load shall be calculated in accordance with the following formula:

$$AL = \sum_{(Jan-Dec)} ML$$

where:

AL = calendar year annual load (lb/yr)

ML = total monthly load (lb/mo)